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| 10/561,898 | 12/22/2005 | Ingo Hutter | PD030070 | 3078 |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,898

Applicant(s)

HUTTER, INGO

Examiner

ANTHONY BANTAMOI

Art Unit

2423

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/28/2009 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

Claim 1 recites the limitation "the third network" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2003/0110334 to Lanigan et al. (Lanigan), in view of US Patent Publication 2002/0078161 to Cheng. (Cheng).

Regarding claim 1, Lanigan teaches a method for controlling a first network station (25) in a network of a first type (20) from a second network station (35) in a network of a second type (30), a network connection unit (40) being provided for the connection of the two networks, the network connection unit (40) performing a conversion of a control command issued in the a format of the network of the second type into a corresponding control command in a the format of the network of the first type, the network connection unit directing the corresponding control command to the first network if the first network station provides a functionality corresponding to said control command, the format of the corresponding control command being adapted to the first network station (Para. 0041, ll. 1-13 (emphasis on 11-13), & Para. 0046-0047).

Lanigan's bridge (40) is capable of detecting a new device and checking its identifier and generating a bridge control unit if the identifier does not match the format of the other bridge control units (Para. 0029-0030).

However, Lanigan is silent on wherein if the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type wherein the network connection unit determines the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of “forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)). Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify the bridge of Lanigan to include the method wherein if the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type wherein the network connection unit determines the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain

functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 2, Lanigan is silent on the method, wherein if none of said further network stations in the network of the first type for which a connection is registered with said first network station provides a functionality corresponding to the control command, the network connection unit directs said corresponding control command to a fourth network station in the network of the first type wherein the network connection unit determines said fourth network by checking whether a connection setup is registered between one of said further network stations and another network station in the network of the first type which provides a functionality corresponding to the control command, the format of the corresponding control command is adapted to the fourth network station.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of “forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)). Therefore it would have been

obvious for one of ordinary skills in the art at the time the invention was made to modify the bridge of Lanigan to include the method, wherein if none of said further network stations in the network of the first type for which a connection is registered with said first network station provides a functionality corresponding to the control command, the network connection unit directs said corresponding control command to a fourth network station in the network of the first type wherein the network connection unit determines said fourth network by checking whether a connection setup is registered between one of said further network stations and another network station in the network of the first type which provides a functionality corresponding to the control command, the format of the corresponding control command is adapted to the fourth network station in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 3, Lanigan teaches the method, wherein the first network station is a display device and the second network station is a TV set (figure 1, labels 35, & 25).

Regarding claim 4, Lanigan is silent on the method, wherein upon arrival of a control command with regard to a program setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of "forwarding a command to another network station connected to a station that lacks functionality" as performed in the instant application)) which meets "the method, wherein upon arrival of a control command with regard to a program setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device"

Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify the bridge of Lanigan to include the method, wherein upon arrival of a control command with regard to a program setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device in order to bridge multiple heterogeneous

networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 5, Lanigan is silent on the method, wherein upon arrival of a control command with regard to a volume setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up and, if so, the control command with regard to the volume setting is converted into format matching the audio device and the corresponding control command is transmitted to the audio device.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of “forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)) which meets “the method, wherein

upon arrival of a control command with regard to a volume setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up and, if so, the control command with regard to the volume setting is converted into format matching the audio device and the corresponding control command is transmitted to the audio device"

Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify the bridge of Lanigan to include the method, wherein upon arrival of a control command with regard to a volume setting, a check is made by the network connection unit to determine whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up and, if so, the control command with regard to the volume setting is converted into format matching the audio device and the corresponding control command is transmitted to the audio device in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 6, Lanigan teaches the method, wherein the network of the first type is a network based on the HAVi Standard, where HAVi stands for Home Audio/Video interoperability (figure 1, label 20).

Regarding claim 7, Lanigan teaches the method, wherein the network of the second type is a network based on Internet Protocol, in particular UPnP, where UPnP stands for Universal Plug and Play (figure 1, label 30).

Regarding claim 8, Lanigan teaches the method, the second network station being a UPnP TV or a media renderer issuing a control command with regard to a program setting, wherein the format of corresponding control command is the HAVi command Tuner::SelectService of a tuner FCM, where FCM stands for Functional Component Module (Para. 0041, ll. 1-13 (FCM's and DCM's are inherent in HAVi)).

Regarding claim 9, Lanigan teaches the method, the second network station is a UPnP TV or a media renderer issuing a control command with regard to a volume setting, wherein the format of corresponding control command is the HAVi command Amplifier::SetVolume of an amplifier FCM (Para. 0041, ll. 1-13 (FCM's and DCM's are inherent in HAVi)).

Regarding claim 10, Lanigan teaches a network connection unit (40) for connecting a network of a first type (20) to a network of a second type (30), a first network station (25) in the network of the first type being controlled by a second network station (35) in the network of the second type, the connection unit (40) having conversion means for converting a control command issued by the second network station (35) in a in the format of the network of the second type into a corresponding

control command in a format of the network of the first type, said converting means directing said corresponding control command to said first network station and said format of the network of the first type being adapted to the first network station if the first network station provides a functionality corresponding to the control command (Para. 0041, ll. 1-13 (emphasis on 11-13), & Para. 0046-0047).

Lanigan is silent on wherein the connection unit has further first conversion means for directing said corresponding control command to a third network station of said network of the first type said first conversion means are activated if the first network station does not provide any functionality corresponding to the control command, the first conversion means is adapted to determine said third network station from a check on whether a data connection setup is registered between said first network station and a further network station in the network of the first type which has a functionality corresponding to the control command, the format of the corresponding control command is adapted to said third network station.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, ll. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of

“forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)). Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify the bridge of Lanigan to include wherein the connection unit has further first conversion means for directing said corresponding control command to a third network station of said network of the first type said first conversion means are activated if the first network station does not provide any functionality corresponding to the control command, the first conversion means is adapted to determine said third network station from a check on whether a data connection setup is registered between said first network station and a further network station in the network of the first type which has a functionality corresponding to the control command, the format of the corresponding control command is adapted to said third network station in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 11, Lanigan is silent on the network connection unit, wherein the connection unit has further second conversion means for directing said corresponding control command to a fourth network station of said first network, said second conversion means are activated if none of said further network stations in the network of the first type for which a connection is registered with said first network station has a functionality corresponding to the control command, the second conversion means are

adapted to determine said fourth network station from a check on whether a connection setup is registered between one of said further network stations and another network station in the network of the first type which provides a functionality corresponding to the control command, the format of the corresponding control command is adapted to the fourth network station.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of “forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)) which meets “the network connection unit, wherein the connection unit has further second conversion means for directing said corresponding control command to a fourth network station of said first network, said second conversion means are activated if none of said further network stations in the network of the first type for which a connection is registered with said first network station has a functionality corresponding to the control command, the second conversion means are adapted to determine said fourth network station from a check on whether a connection setup is registered between one of said further network stations

and another network station in the network of the first type which provides a functionality corresponding to the control command, the format of the corresponding control command is adapted to the fourth network station".

Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify network unit of Lanigan to include wherein the connection unit has further second conversion means for directing said corresponding control command to a fourth network station of said first network, said second conversion means are activated if none of said further network stations in the network of the first type for which a connection is registered with said first network station has a functionality corresponding to the control command, the second conversion means are adapted to determine said fourth network station from a check on whether a connection setup is registered between one of said further network stations and another network station in the network of the first type which provides a functionality corresponding to the control command, the format of the corresponding control command is adapted to the fourth network station in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 12, Lanigan is silent on the network connection unit, the first network station being a display device and the second network station being a TV set, the control command being in regard with a program setting, wherein upon arrival of a

control command, the first conversion means determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of “forwarding a command to another network station connected to a station that lacks functionality” as performed in the instant application)) which meets “the network connection unit, the first network station being a display device and the second network station being a TV set, the control command being in regard with a program setting, wherein upon arrival of a control command, the first conversion means determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device”.

Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify network unit of Lanigan to include the first

network station being a display device and the second network station being a TV set, the control command being in regard with a program setting, wherein upon arrival of a control command, the first conversion means determine whether the display device maintains a data connection set up with a tuner device, and, if so, that the control command is converted into a format matching the tuner device and the corresponding control command is transmitted to the tuner device in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 13, Lanigan is silent on the network connection unit, the first network station being a display device and the second network station being a TV set, the control command being in regard with a volume setting, wherein the network connection unit has means for determining whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up, and, if so, the control command is converted into a format matching the audio device and the corresponding control command is transmitted to the audio device.

Cheng teaches a network interface bridge (200) with a management feature which discovers devices and their capabilities as they become connected to various heterogeneous networks wherein the bridge does not only convert messages from a protocol of one network into a protocol of a different network to control a device (see

UPnP, X-10, Bluetooth etc. in figure 1) but also utilizes the services of a file server (130) which provides additional capabilities to control a device which lacks capability (Para. 0018-0019, Para. 0022, II. 1-17, & Para. 0026-0028 (harvesting the services of the file server (130) in the control process of Cheng is an obvious equivalent of "forwarding a command to another network station connected to a station that lacks functionality" as performed in the instant application)) which meets "the network connection unit, the first network station being a display device and the second network station being a TV set, the control command being in regard with a volume setting, wherein the network connection unit has means for determining whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up, and, if so, the control command is converted into a format matching the audio device and the corresponding control command is transmitted to the audio device".

Therefore it would have been obvious for one of ordinary skills in the art at the time the invention was made to modify network unit of Lanigan to include the first network station being a display device and the second network station being a TV set, the control command being in regard with a volume setting, wherein the network connection unit has means for determining whether the display device maintains a data connection set up to a video data source device, and, if so, whether a data connection between the video data source device and an audio device is furthermore set up, and, if so, the control command is converted into a format matching the audio device and the

corresponding control command is transmitted to the audio device in order to bridge multiple heterogeneous networks wherein a dedicated server on the controlled network holds additional functionalities to support devices that lack the capability to perform certain functions while translating and forwarding commands to appropriate devices thereby avoiding physical modification of the devices.

Regarding claim 14, Lanigan teaches the connection unit as claimed in claim 10, wherein the connection unit is designed for the connection to a network of a first type based on the HAVi standard, where HAVi stands for Home Audio/Video interoperability, to a network of a second type based on the Internet Protocol, in particular UPnP, where UPnP stands for Universal Plug and Play (figure 1, entire).

Regarding claim 15, Lanigan teaches the connection unit, the control command being issued by a UPnP TV or a media render and being in regard with a program setting, wherein the format of the corresponding control command corresponds to the HAVi command Tuner::SelectService of a tuner FCM, where FCM stands for Functional Component Module (Para. 0041, Il. 1-13).

Regarding claim 16, Lanigan teaches the connection unit, the control command being issued by a UPnP TV or a media render and being in regard with a volume setting, wherein the format of the corresponding control command corresponds to the HAVi command Amplifier::SetVolume of an amplifier FCM (Para. 0041, Il. 1-13).

Regarding claim 17, Lanigan teaches the method, wherein the network of the second type being a network based on the Internet Protocol, in particular UPnP, where UPnP stands for Universal Plug and Play (figure 1, label 30).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY BANTAMOI whose telephone number is (571)270-3581. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571)2727296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANTHONY BANTAMOI/
Examiner, Art Unit 2423

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423